



Resource Typing Definition for Response
Environmental Response/Health and Safety

HAZARDOUS MATERIALS TECHNICIAN

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| RESOURCE CATEGORY | Fire and Hazardous Materials |
| RESOURCE KIND | Personnel |
| OVERALL FUNCTION | The Hazardous Materials Technician responds to hazardous materials incidents, including those involving Weapons of Mass Destruction (WMD) |
| COMPOSITION AND ORDERING SPECIFICATIONS | <ol style="list-style-type: none"> 1. This position can be ordered as a single resource or in conjunction with a National Incident Management System (NIMS) typed team (Hazardous Materials Response Team) 2. Discuss logistics for deploying this position, such as security, lodging, transportation, and meals, prior to deployment 3. This position works up to 12 hours per shift, is self-sustainable for 72 hours, and is deployable for up to 14 days 4. Requestor and provider should discuss mission-specific capabilities, such as railcar, cargo tank trucks, intermodal tanks, marine tanks, non-tank vessels, bulk storage for flammable liquids and gases, and radioactive materials |

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

| COMPONENT | TYPE 1 | TYPE 2 | NOTES |
|--------------------|---|---|---------------|
| DESCRIPTION | Same as Type 2, PLUS: <ol style="list-style-type: none"> 1. Responds to specialized incidents involving cargo tanks, tank cars, marine tanks, non-tank vessels, intermodal tanks, flammable gas bulk storage, flammable liquid bulk storage, or radioactive materials, depending on level of training and incident scope 2. Uses advanced equipment, such as mass spectrometry and gas chromatography, to detect, identify, and monitor hazardous materials | The Type 2 Hazardous Materials Technician: <ol style="list-style-type: none"> 1. Responds to hazardous materials incidents, including those involving WMD 2. Uses a risk-based response process to analyze problems 3. Selects applicable detection and monitoring equipment, Personal Protective Equipment (PPE), decontamination procedures, and control equipment 4. Reports to the Hazardous Materials Response Team Leader 5. At the discretion of the Hazardous Materials Response Team Leader, serves as Unit Leader for the decontamination unit, research unit, or entry team | Not Specified |
| EDUCATION | Not Specified | Not Specified | Not Specified |



| COMPONENT | TYPE 1 | TYPE 2 | NOTES |
|------------------------|---|--|---|
| <p>TRAINING</p> | <p>Same as Type 2, PLUS:</p> <ol style="list-style-type: none"> 1. Advanced training in hazardous materials specialties in accordance with the Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.120 (q)(6)(iv) or the National Fire Protection Association (NFPA) 472—such as those available through the National Domestic Preparedness Consortium (NDPC) or the Rural Domestic Preparedness Consortium (RDPC)—including one or more of the following: <ol style="list-style-type: none"> a. Specialized hazardous materials response, such as cargo tank, tank car, marine tank and non-tank vessel, intermodal tank, flammable gas bulk storage, flammable liquid bulk storage, railcar, or radioactive materials b. Use of specialized detection equipment, such as Raman spectroscopy, gas chromatography, mass spectrometry, Fourier transform infrared (FTIR) spectrometry, and so on | <p>Completion of the following:</p> <ol style="list-style-type: none"> 1. IS-100: Introduction to the Incident Command System, ICS-100 2. IS-200: Incident Command System for Single Resource and Initial Action Incidents 3. IS-700: National Incident Management System, An Introduction 4. IS-800: National Response Framework, An Introduction 5. Training in accordance with OSHA 29 CFR Part 1910.120: Hazardous Materials Technician Level and NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction 6. Training in accordance with OSHA 29 CFR Part 1910.134(k): Respiratory Protection | <p>Military training may substitute for other training at the Authority Having Jurisdiction's (AHJ) discretion.</p> |



| COMPONENT | TYPE 1 | TYPE 2 | NOTES |
|---------------------------------------|---|--|---------------|
| EXPERIENCE | <p>Same as Type 2, PLUS:</p> <p>Knowledge, Skills and Abilities:</p> <ol style="list-style-type: none"> Expertise in specialty areas of hazardous materials response, such as chemical, biological, radiological, or nuclear threat agents and their effects on emergency operations Ability to adapt to regional or jurisdictional enterprise operations Ability to operate advanced detection, monitoring, and testing equipment | <p>Knowledge, Skills and Abilities:</p> <ol style="list-style-type: none"> Knowledge of role of technicians in incident command system Knowledge of hazardous materials terminology and behavior, and the ability to perform advanced hazard and risk assessment Ability to perform advanced control, containment, and confinement techniques Ability to select and use specialized PPE Ability to implement decontamination procedures Ability to perform duties in accordance with AHJ policies and procedures Ability to understand and adapt to the requesting organization's regulations, policies, and procedures Knowledge of workers' compensation reporting procedures Knowledge of radiological dosimeter tracking and recording procedures <p>Experience:</p> <p>One year of work experience in hazardous materials response</p> | Not Specified |
| PHYSICAL / MEDICAL FITNESS | Same as Type 2 | <ol style="list-style-type: none"> Performs duties under moderate circumstances characterized by working consecutive 12-hour days under physical and emotional stress for sustained periods of time Compliance with OSHA 29 CFR Part 1910.120(f)(3): Frequency of medical examinations and consultations and OSHA 29 CFR Part 1910.134: Respiratory Protection Maintains AHJ-determined physical fitness standards suitable for the environment and typing; the NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments and the National Wildfire Coordinating Group (NWCG) Fitness and Work Capacity meet or exceed this physical fitness standard | Not Specified |



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| COMPONENT | TYPE 1 | TYPE 2 | NOTES |
|---|----------------|--|---------------|
| CURRENCY | Same as Type 2 | <ol style="list-style-type: none"> 1. Functions in this position during an operational incident, exercise, drill, or simulation at least once every year 2. Conducts annual refresher training in accordance with OSHA 29 CFR Part 1910.120 or in accordance with AHJ requirements | Not Specified |
| PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS | Same as Type 2 | Maintains AHJ-determined certification or documentation indicating completion of training; certifications from the National Board on Fire Service Professional Qualifications (the Pro Board) or the International Fire Service Accreditation Congress (IFSAC) for a Hazardous Materials Technician—certification consistent with OSHA 29 CFR Part 1910.120(q)(6)(iii) and NFPA 472—meet or exceed this standard | Not Specified |



NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability.

REFERENCES

1. FEMA, NIMS 508: Hazardous Materials Response Team, pending publication
2. FEMA, NIMS 509: Hazardous Materials Team Leader, pending publication
3. FEMA, NIMS 509: Hazardous Materials Research Specialist, pending publication
4. Occupational Health and Safety Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.120: Hazardous Waste Operations and Emergency Response, latest edition adopted
5. OSHA 29 CFR Part 1910.1030: Bloodborne Pathogens, latest edition adopted
6. OSHA 29 CFR Part 1910.134: Respiratory Protection, latest edition adopted
7. National Fire Protection Association (NFPA) 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, latest edition adopted
8. NFPA 475: Recommended Practice for Organizing, Managing, and Sustaining a Hazardous Materials/Weapons of Mass Destruction Response Program, latest edition adopted
9. NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments, latest edition adopted
10. National Wildfire Coordinating Group (NWCG), PMS 307: Work Capacity Test, latest edition adopted
11. NWCG, National Incident Management System Wildland Fire Qualification System Guide, PMS 310-1, Physical Fitness Levels, October 2016